



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/743,847

12/22/2003

Yao Ting

1010720-991111

9082

26379

7590

12/21/2006

DLA PIPER RUDNICK GRAY CARY US, LLP  
2000 UNIVERSITY AVENUE  
E. PALO ALTO, CA 94303-2248

EXAMINER

LAMARRE, GUY J

ART UNIT

PAPER NUMBER

2133

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|----------------------------------------|-----------|---------------|
|----------------------------------------|-----------|---------------|

3 MONTHS

12/21/2006

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/743,847 | <b>Applicant(s)</b><br>TING ET AL. |  |
|                              | <b>Examiner</b><br>Guy J. Lamarre    | <b>Art Unit</b><br>2133            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/10/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

- \* Pursuant to 35 USC 131, **Claims 1-23** are added and remain pending.

#### Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 1.1 **Claims 1-5, 8-11, 14-22** are rejected under 35 U.S.C. 102(b) as being anticipated by **Applicants' Admitted prior art** (hereinafter **Admitted prior art**).

As per **Claims 1-5, 8-11, 14-22, Admitted prior art** discloses equivalent error detection in a data stream comprising: parsing input packets having predetermined formats (video/voice) (**claims 1, 10, 14-15, 19, 21**), e.g., at page 1 line 14; error detection of said input packets (**claims 2, 20**), e.g., at page 1 line 17- and indication/marketing/flagging/tagging said input packets at error determination (**claim 3**); selecting/demultiplexing voice data from said input packets for storage), e.g., at page 1 line 12 (**claims 4, 9, 16-17**); wherein error detection is via CRC and predetermined formats comprise AC-3 data format (**claims 5, 11, 22**), e.g., at page 1 line 16.

#### Claim Rejections - 35 USC ' 103

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

- 2.0 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**2.1 Claims 6-7, 12-13, 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Applicants' Admitted prior art** (hereinafter **Admitted prior art**) and **Fahmi et al.** (US Patent No. 6128766).

As per **Claims 6-7 and 12-13, Admitted prior art** substantially discloses the claimed approach of error detection in a data stream. {See **Admitted prior art**, page 1 in passim, wherein apparatus and method are described.}

**Not specifically described** in detail in **Admitted prior art** is the step whereby cycle delay is effected along with polynomial division on data frame/packet bits.

However **Fahmi et al.**, in an analogous art, discloses such techniques in col. 2 line 20, col. 4 line 8(delay) and col. 1 line 17, col. 3 line 5 (polynomial division), e.g., *"In accordance with another embodiment, a system for determining an error detection code (EDC) on a bit stream comprising a payload formed of a sequence of words followed by a reserved field, is comprised of an input data CRC (EDC) calculator, an input data and reserved field CRC (IDRC) calculator, apparatus for applying input data in parallel format to inputs of the calculators, first apparatus for selecting an output of either of the calculators to a CRC output, first delaying apparatus for delaying by a word interval the output of either of the calculators prior to application of said output to the CRC output, apparatus for applying a signal from the delayed CRC output to recursive update inputs of the calculators, second apparatus for selecting either the input data or the signal from the delayed CRC output to a system output, apparatus for applying a signal to said first apparatus, for selecting an output of the EDC calculator for application to the delaying apparatus for application to the delayed CRC output during an interval of each word of the input data until the occurrence of a last input word, and for subsequently selecting an output of said IDRC calculator for application to the delaying apparatus for application to the delayed CRC output during the last input word, and apparatus for applying a signal to the second apparatus for selecting during an interval of each word of the input data, for selecting the delayed CRC output during an interval following said last input word."* {See **Fahmi et al.**, Id., col. 4 line 1 et seq.}

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the procedure in the **Admitted prior art** by including

therein data delaying approach and CRC via polynomial division on data frame/packet bits as taught by **Fahmi et al.**, because such modification would provide the procedure disclosed in **Admitted prior art** with a technique whereby “*delays provide proper synchronization for data processing.*” {See **Fahmi et al.**, col. 4 line 26 et seq.}

**As per Claim 21, Fahmi et al.** also discloses equivalent parallel data processing in col. 4 line 45 et seq.}

**As per Claim 23, Fahmi et al.** discloses equivalent circuitry in col. 4 line 5 et seq.}

### CONCLUSION

\* Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (571) 273-8300 for all formal communications.

Hand-delivered responses should be brought to Customer Services, 220 20<sup>th</sup> Street S., Crystal Plaza II, Lobby, Room 1B03, Arlington, VA 22202.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy J. Lamarre, P.E., whose telephone number is (571) 272-3826. The examiner can normally be reached on Monday to Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3609.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see

Application/Control Number: 10/743,847

Page 4 of 4

Art Unit: 2133

<http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Guy J. Lamarre, P.E  
Primary Examiner  
12/5/2006

---